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Notice of Allowability	Application No.	Applicant(s)	
	10/799,441	ROCKWELL, DANIEL J.	
	Examiner	Art Unit	
	Anjan K. Deb	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment 11/28/2005 and interview summary 2/8/2006.
2. ☒ The allowed claim(s) is/are 1-5, 8-10, 16-18 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>2/8/2006</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This office action is in response to amendment filed 11/28/2005 and interview summary 2.8/2006 (attached).

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with attorney Mr. Kenneth Nigon on 2/9/2006.

Amend claim 16 as follows:

Claim 16 (amended). A power distribution system including a power conductor and a neutral conductor including a main section and at least one branch section that connects to the main section at at least one branching point, the power distribution system comprising:
at least one impedance element coupled to the at least one branch section proximate to

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the at least one branching point, wherein the at least one impedance element includes at least one ferrite element concentric with the at least one of the neutral conductor or the power conductor;

a plurality of fault distance indicators the fault distance indicators being coupled to the main section and to the at least one branch section, respectively.

Cancel claim 19.

In claim 20, replace “19” with –16--.

Allowable Subject Matter

3. Claims 1-5, 8-10, 16-18, 20 are allowed.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of the claims 1-5, 8-10 is the inclusion of coupling an impedance device to at least one of the neutral conductor or the power conductor of the branch power line proximate to the at least one branching point to isolate the branch in the power line distribution and coupling a fault recorder to the main power line to detect a fault in the main power line in combination with remaining claims limitations.

The primary reason for allowance of the claims 16-18, 20 is the inclusion of at least one impedance element includes at least one ferrite element concentric with the at least one of the neutral conductor or the power conductor and a plurality of fault distance indicators the fault distance indicators being coupled to the main section and to the at least one branch section, respectively in combination with remaining claims limitations.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Roberts (US 6,256,592 B1) discloses fault location system for a power line 122 comprising at least one branching point (connection point of load 112) coupling an impedance device (transformer connected to load 112 and power line) and coupling a relay 124 to the power line for locating a fault in power line. Roberts did not disclose that the impedance device (transformer) connected to branch circuit (load 112) isolates the branch in the power line distribution and coupling a fault recorder to the main power line to detect a fault in the main power line.

Piesinger (US 5,369,366) discloses method of finding faults in branched electrical distribution circuit comprising a main power line having connection to plurality of branched circuits (Fig. 4). Piesinger did not disclose an impedance device connected to a branch circuit isolates the branch in the power line distribution and coupling a fault recorder to the main power line to detect a fault in the main power line.

Cummins (US 5,729,144) discloses systems and methods for determining location of a fault on an electric utility power distribution system comprising fault recorder (Fig. 3).

Cummins does not disclose a plurality of fault distance indicators the fault distance indicators coupled to the main section and to the at least one branch section.

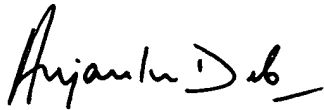
Rockwell (US 6,798,211 B1) discloses power distribution system comprising at least one impedance element (Transformer 414) proximate to branching point (the branching point of branch section 412 is at transformer 414), and plurality of fault indicators 411. Rockwell does not teach at least one impedance element includes at least one ferrite element concentric with the at least one of the neutral conductor or the power conductor and a plurality of fault distance indicators the fault distance indicators being coupled to the main section and to the at least one branch section.

Lusignan (US 4,843,356) discloses electrical conductor for high voltage application comprising inductance provided by ring(s) of magnetic material such as ferrites concentric with the conductor for improved signal transmission. Lusignan does not disclose impedance element comprising ferrite element concentric with conductor is proximate to a branching point to isolate the branch.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached at 571-272-2399.



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2/10/06